

Russian Thermophysical Properties Database "Organika"

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The largest database in Russia "Organika" ("Organics") was accumulated for thirty years according to requirements of research, design, industrial and educational institutions of the Russian chemical industry. Presently, this database includes properties of 2000 organic and some most commercially significant inorganic compounds of various classes. It contains 17 properties for each pure compound and vapor-liquid equilibria of binary mixtures necessary for equipment design. The range of pressures and temperatures runs from triple to critical point. Aggregative states are vapor and liquid on the saturation line. The database "Organika" has the following features: an automatic analysis of input literature data; an automatic choice of most reliable and relevant recommended data; an automatic compilation of a databank for each compound with indication of recommended values for each property; for some compounds, the data absent in the literature were obtained by experiment or calculation. The database is continuously updated with data from the largest Russian databank containing data from international sources on thermophysical properties. Russian sources that until recently comprised 28% percent of all world publications on the topic are most fully presented there. The database "Organika" was used for the development, designing and redesigning of many large-scale chemical industries in Russia, CIS, Central European and other countries.